

Application No. 10/051,297
Docket No. 740116-358
Page 6

REMARKS

By the above actions, claims 1, 10 16, 18, and 19 have been amended. In view of these actions and the following remarks, further consideration of this application is now requested. With regard to the minor informalities that served as the basis of the Examiner's objection and indefiniteness rejection of the claims, it is noted that all of these informalities have been addressed in accordance with the Examiner's comments. Therefore, the objection and indefiniteness rejection of the claims should now be withdrawn and such action is requested.

Claims 1, 2, 5, 7, 9, 16, and 18-21 have been rejected under 35 USC § 103 based upon the German reference to Popp when viewed in combination with the patent to Zyl, while the other claims have been rejected based on this combination of references when viewed in further combination with one of the disclosures of Yasui, Bruccoleri et al., Henson, Takamuki, Haynes and Brennen et al. for the reasons noted at length by the Examiner in his Action. However, these rejections are considered inappropriate, at least insofar as they may relate to the claims as now presented.

The Popp reference is the prior described in paragraph [0006], page 3 and 4 of the present application. However, the Examiner's parenthetical citations to numbers such as "001", "009," etc., with or without following line numbers is not understood since Popp has no paragraph numbers. If this rejection is maintained, clarification is requested.

As recognized by the Examiner Popp does not disclose applicant's temporary shifting of the processor from an awake mode to a sleep mode in which the processor is inactive. To the contrary instead of using this technique which is the manner in which the present invention achieves lower power consumption (paragraphs [0007], [0008] & [0011] of the present application), low power consumption is achieved by Popp through the use of "a low clock frequency and thus low processing speed of the processor circuit" (page 4, lines 3-5 of the present application). The technique of the present invention does not sacrifice processor speed as does Popp, yet still reduces power consumption (via the switching between awake and sleep modes) while enabling changes in the quantity being measured to be followed during the time periods during which the processor circuit is inactive due to the output signal

Application No. 10/051,297

Docket No. 740116-358

Page 7

of the sensor being routed past the processor circuit via the analog signal transmission path when the processor is in the sleep mode (see, paragraphs [0012] & [0013], page 6 of the present application).

As for the Zyl patent, the transducer arrangement of this patent does not have an analog measurement signal transmission path. Furthermore, as can be seen from the description of column 2, lines 13-38, Zyl teaches two alternative manners for achieving low power consumption. One technique is analogous to that of Popp in that clock rate of the processor is reduced, only in this case proportionally to a power deficit condition, thus affecting processing speed similarly to the technique of Popp. In the other technique, to which the Examiner makes reference, when a deficit in the ability of the power regulating circuit to meet the requirements of the processor is detected, the processor is shifted into a "sleep" mode in which program execution is halted." However, such a manner of operation produces the very problem described in paragraph [0012] of the present application, i.e., because the sleep mode halts program execution and measurement processes controlled by the processor, during the sleep mode, the transducer of Zyl will be unable to follow the change in the quantity to be measured with the desired response speed. However, this is not a problem with the present invention because, as noted above, changes in the quantity being measured are able to be followed during the time periods during which the processor circuit of the present invention is inactive due to the output signal of the sensor being routed past the processor circuit via the analog signal transmission path when the processor is in the sleep mode. This concept is not suggested by Zyl.

Thus, a person of ordinary skill viewing the combined teaching of Popp and Zyl, would consider Zyl's alternative technique of adjusting clock speed as the logical modification to apply to Popp since it is related to and compatible with Popp's concept. However, even if Zyl's primary technique of sending the processor into an inactive sleep mode were to be considered, it would not lead to the present invention since the requisite teaching for enabling continued tracking of sensor output during the sleep mode when "measurement processes controlled by the processor" are halted would be lacking. This distinction between the present invention and the Popp and Zyl references is now been made explicitly clear via the above amendments to claims 1 and 16.

Application No. 10/051,297
Docket No. 740116-358
Page 8

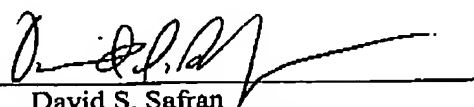
As for the other references relied upon secondarily by the Examiner with respect to claims 3, 4, 6, 8, 10-15, and 17, none of these references teach the concept of the present invention which distinguishes the present invention from that of Popp and Zyl. Therefore, even if it were obvious to apply their teachings to Popp and Zyl, the result could not lead to the presently claimed invention.

Accordingly, it is submitted that the Examiner the outstanding rejections based in whole or in part upon the combination of the Popp and Zyl references should now be withdrawn and such action is hereby requested.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with applicant's representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited. In this regard, the Examiner's attention is directed to the new correspondence address and telephone number indicated below and on the accompanying Change of Address notice.

Lastly, it is noted that a separate Extension of Time Petition accompanies this response along with a deposit account authorization for payment of the requisite extension of time fee. However, should that petition become separated from this Amendment, then this Amendment should be construed as containing such a petition and authorization for the required payment applied to Deposit Account No. 50-2478 (740116-358).

Respectfully submitted,

By: 
David S. Safran
Registration No. 27,997

Roberts Mlotkowski & Hobbes P.C
8270 Greensboro Drive
Suite 850
McLean, VA 22102
Direct Telephone: (703) 584-3273